

Comprehensive Environmental Data Base

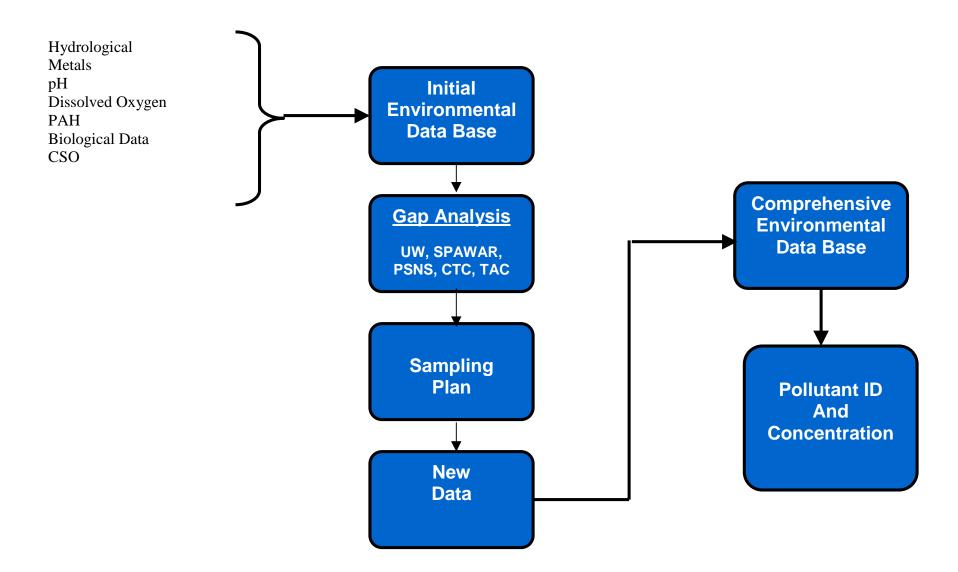
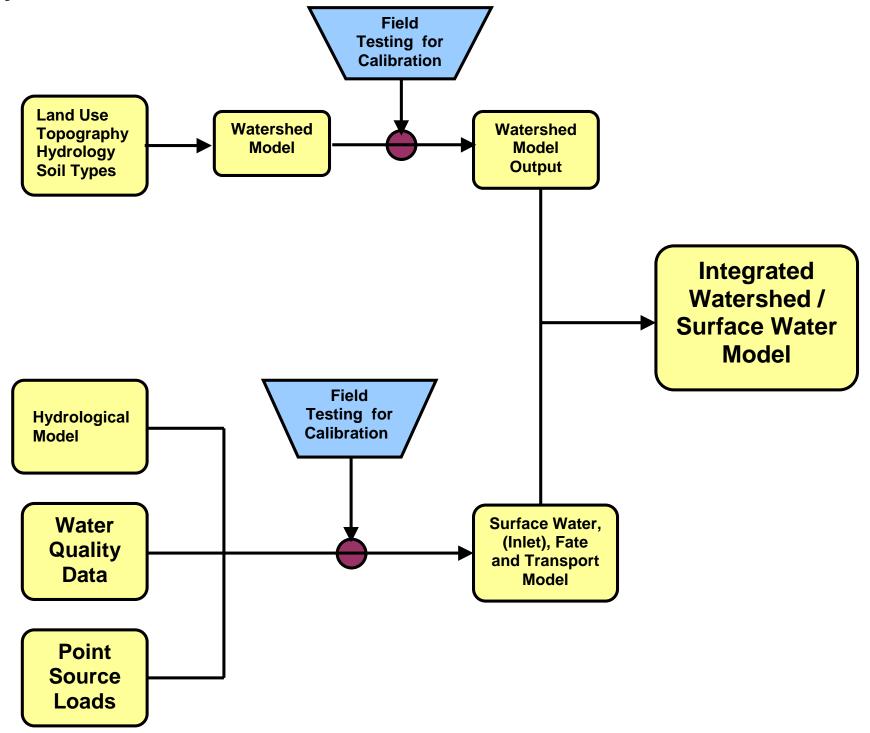
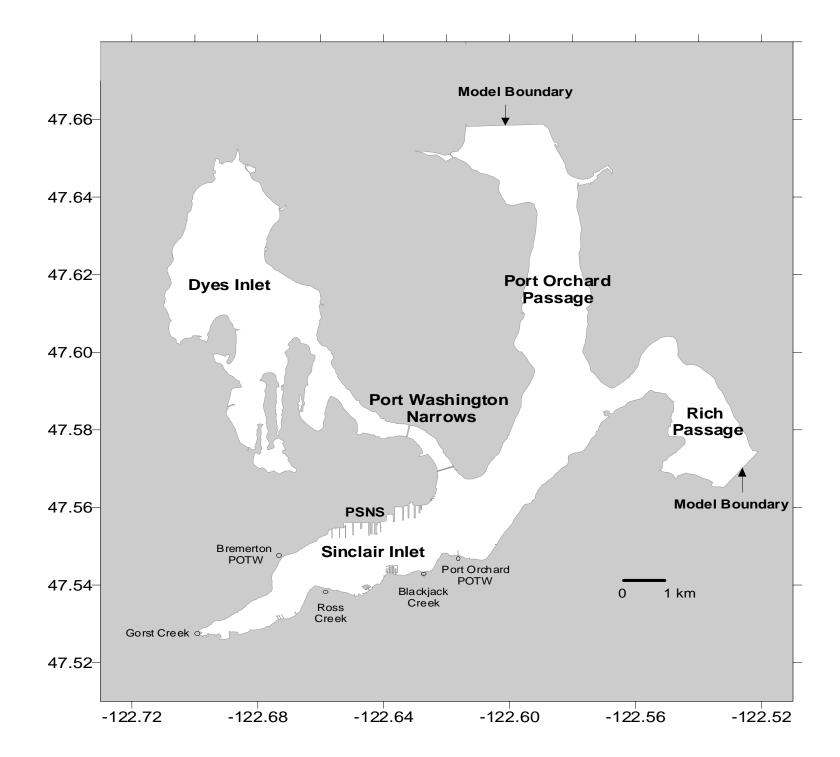


Fig. 3





The Ecological Risk Assessment Process

Inputs Into the Ecological Risk Assessment Process

Understanding of Ecological System:

- Hydrology
- Geology
- Dynamics
- Sources of Impact

Conceptual Model:

Picture of How the System
Works

Data on Exposure Levels in the Environment

Chemical Levels in Water, Sediment and Biota

Data on Ecological Conditions in the

Environment: Toxicity, Bioaccumulation, Community Composition, and Status of Ecological Resources

Literature Data that Relate Exposure Levels to Effects

Toxicity Thresholds & Benchmarks

Ecorisk Assessment

Process for evaluating the Likelihood of harm to ecological resources from stressors

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Outputs:

Problem Formulation (What are the Questions?)

Assessment Endpoints (What are we trying to protect?)

Exposure Pathways (*How can resources be harmed*?)

Characterize Stress (Measure Pollution Levels)

Characterize Ecological Effects (Measure Toxicity and Effects)

Characterize Risk

Weight of Evidence Applied to Systematically Evaluate the Data and Develop Conclusions About Risk



Develop Risk Management Options

